

## West American Mollusk Types in the British Museum (Natural History)

### II. Species Described by R. B. HINDS

BY

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(Plates 46, 47; 6 Text figures)

LITTLE HAS BEEN SAID about RICHARD BRINSLEY HINDS in the literature, and the dates of his birth and death still elude me. His principal monument is in the quality of the publications he produced in three short years. He had the post of surgeon on H. M. S. *Sulphur*, stationed in the Pacific from 1836 to 1842. Then when the ship returned to England he was charged with the task of working up reports on zoological and botanical collections. His publications between 1842 and 1845 amounted to some 20 books and papers. So many were the new species HINDS described that we of the present century have come to feel he was the principal collector of the *Sulphur* material. Actually, however (as he made clear in the titles of papers), the real responsibility for the collections rested with the ship's commander, Captain (later Sir) Edward Belcher. HINDS, however, with a talent for systematic work, proved an able lieutenant who kept locality records and unusually detailed and perceptive notes on distribution. In addition to his publications on Mollusca he edited the volume on botany and prepared an essay on plant distribution for Belcher's "Narrative" of the voyage. Perhaps it was the strain of such continuous effort that undermined his health. At any rate, "early death," as CARPENTER remarked in 1857, removed a worker of great promise just at the peak of his career. One assumes, then, that he died soon after 1845.

Captain Edward Belcher had started out as surveyor in 1825 on the *Blossom*, a British vessel commanded by Captain Frederick Beechey, which was sent to explore Bering Strait and the Arctic Ocean as part of a search for a navigable Northwest Passage. Probably on this expedition he began collecting. Beechey entrusted the expedition's collections to Dr. J. E. Gray, curator at the British Museum, but Gray was so long in finishing the

molluscan part (9 years) that the material was recalled and the manuscript handed over to G. B. Sowerby for completion (it was published in 1839). Belcher, meanwhile, was given command of a surveying ship working off West Africa, and in 1836 was put in charge of the *Sulphur*, to complete the work left unfinished by the *Blossom* along the west coasts of South and North America, from Peru to southern Alaska. In 1839 the vessel was ordered back to Britain via the trans-Pacific route. What with side-trips and delays due to war in China, it did not get to England until early 1842. By October of that year the first of HINDS' papers was printed. Obviously, then, Belcher had enlisted the help of a less-procrastinating report-writer than had Beechey. Belcher, who was knighted in 1843, set out for the Pacific again in the *Samarang*, and HINDS was left the task of working up the collection. He had for comparison the magnificent collection made along the South and Central American coast by Hugh Cuming, and he described a part of this along with the *Sulphur* and other Belcher material. Issuing piecemeal descriptions and supervising the preparation of plates for the two large volumes on Zoology and Botany of the voyage must have occupied HINDS' full time.

The registry numbers of the *Sulphur* material at the British Museum (Natural History) tell an interesting story in themselves. The first entry is in February, 1842, which must have been immediately upon arrival of the expedition. This is listed as a donation by HINDS. For most lots generic names only are given, but localities are indicated; the registry numbers are 1842.2.21.37-.

In June of 1844 Captain Belcher is credited with 40 lots: 1844.6.7.33-72, although he would by that time have been on his way to the Pacific. A biographical sketch on

the dealer Lovell Reeve (MELVILL, 1900, p. 349) provides evidence that Belcher put his collection on the market soon after he had returned from the *Samarang* voyage and even before ADAMS and REEVE had published the "Zoology of the Samarang" in 1850. One of the collectors favored by Reeve because he had a proper appreciation of fine shells was Thomas Lombe Taylor. After the private sales through specialty dealers such as Reeve and – probably – Sowerby, the material went up for general sale at Stevens' Auction Rooms. An entry in the British Museum register for 1851 says, "Purchased at Stephens' sale from Captain Belcher's collection: 51. 11.3.106-715." All of the lots in this acquisition that I traced were without locality data or specific identification. Numbers 127-129, for example, were labelled merely *Columbella*; the shells were identifiable as *Anachis nigrofusca* (CARPENTER, 1857), which shows that, thorough as HINDS was, he had not exhausted the potentialities of Belcher's material.

Many of the types and figured specimens were among the lots sold to favored collectors, and a fairly large number of these found their way eventually to the British Museum. After the death of T. Lombe Taylor in 1874, his wife gave the Museum many of the Belcher types and figured specimens; these are items bearing the registry numbers 74.12.11. . . . The British Museum purchased other of the Taylor material later; these have such registry numbers as 79.2.26. . . . A few other types came in from time to time as donations from other purchasers. S. Hanley seems to have had some that went to H. Harvey, Esq. These have registry numbers in the 1900's. The material that was exchanged or given to Hugh Cuming by Belcher came to the British Museum with the Cuming collection in the 1860's but was not, in the main, assigned separate registry numbers.

All of the Belcher material reported upon by HINDS would be syntypic according to modern type terminology. Any specimens that can be shown to have been among the *Sulphur* material would have been seen by HINDS during the preparations of his descriptions. Because he did not set the figured shells aside as "holotypes," these, too, must be considered as syntypes, although, when detected, they would be the logical selections as lectotypes, if such precision at any time seems advisable.

In the following census I have recorded what I was able to locate in my six months of search at the British Museum, mainly during late 1964, with a re-check in August 1965. I may well have overlooked some lots, especially among the Cuming shells. Other West American material may also remain undetected because described under incorrect locality labels; at least two forms

described as from Africa have turned out to be West American. The fact that Belcher collected in West Africa before his transfer to the *Sulphur* makes it the more plausible that he could have mixed labels and shells in his cabinet. More syntypic specimens may be found – though this becomes less and less likely – in the private collections of Europe, purchased during the sales of the Belcher material.

My first plan was to list HINDS' material in the order of mention in the "Voyage of the Sulphur," but this ran into so many complexities because of his several publications that I decided upon a systematic order instead. Each paragraph comprises the following: name of species, original generic assignment; exact date; first reference; reference in the "Voyage of the Sulphur" (abbreviated to "VS"), with a colon instead of "p." and the exact date of the publication of the illustration; type locality as given by HINDS; number of specimens, if stated; dimensions; present status of type material; modern allocation, if different, and notes on nomenclature; and reference to any figures in this paper.

HINDS stated the length of specimens in "lines" (approximately one-tenth of an inch), and I have here also given the metric equivalent, thus: "5 lin. (13 mm)." Additional comments, in square brackets, correct errors as to size for presumed holotype specimens or indicate the largest syntype size in the British Museum collection, thus: "[actually . . . mm]."

Some of the specific names that HINDS proposed had already been used. These homonyms are indicated here by the use of square brackets for insertion of author and date of the earlier usage and any subsequent replacement names between the date for HINDS' name and his first reference.

The *Conchologia Iconica* of REEVE was just getting under way at the time HINDS was preparing his reports. REEVE, of course, gave full credit to HINDS, and neither He was generous in lending shells to REEVE for illustration. He could know that when the nomenclatural code would later be formulated, the Law of Priority would rob HINDS of the credit of authorship for a number of the names, for a few of REEVE's plates came out in advance of the publication by HINDS.

While at the British Museum I made photographs of most of the HINDS types for my own records. Only those are reproduced here that are needed to supplement the original figures for the recognition of some of the species. There seems no point in refiguring forms so well known as, for example, *Nassarius perpinguis* or *Mitrella carinata* if the type material proves to have been correctly identified by modern workers. I am reproducing here some of

HINDS' figures that should have been used in my book; I also include two camera lucida sketches that I made to supplement photographs.

Systematic List of West American Species  
Described by HINDS

PELECYPODA

NUCULACEA

- castrensis*, *Nucula*. Dec. 1843. PZS (1843): 98. VS, Jan. 1845: 63, pl. 18, f. 5. Sitka, Alaska, 7 fms. 1 only. 3 lin. (8 mm). Not found. *Acila* (*Truncacila*).
- caelata*, *Nucula*. Dec. 1843 [Non CONRAD, 1833; ? = *Nuculana taphria* (DALL, 1897)]. PZS (1843): 99. VS, Jan. 1845: 64, pl. 18, f. 13. California: Bodegas, San Francisco, and Santa Barbara, 6-10 fms. 7 lin. (18 mm). Not found. *Nuculana*.
- crispa*, *Nucula*. Dec. 1843. PZS (1843): 100. VS, Jan. 1845: 64, pl. 18, f. 14. Gulf of Nicoya, 36 fms. 3 lin. (8 mm). Not found. *Nuculana*.
- excavata*, *Nucula*. Dec. 1843. [Non GOLDFUSS, 1837]. PZS (1843): 100. VS: 64, pl. 18, f. 17. Panama, 30 fms. 4 lin (10 mm). Not found.
- lyrata*, *Nucula*. Dec. 1843. PZS (1843): 100. VS, Jan. 1845: 64, pl. 18, f. 12. Panama, 30 fms. 9.5 lin (24 mm). Not found. = *Nuculana eburnea* (SOWERBY, 1833).

PECTINACEA

- digitatus*, *Pecten*. Jan. 1845. [Non PERRY, 1811; = *P. zeteki* HERTLEIN, 1935]. VS: 61, pl. 17, f. 2. Bay of Guayaquil, 23 fms. B. M. no. 79.2.26.190. = *Semipallium vexillum* (REEVE, 1853), an Indo-Pacific species, fide GRAU, 1959 (Allan Hancock Pac. Expeditions, vol. 23: 122).
- fasciculatus*, *Pecten*. Jan. 1845. VS: 61, pl. 17, f. 4. Veragua, 17 fms. Not found.
- floridus*, *Pecten*. Jan. 1845. [Non GMELIN, 1791; = *P. diegensis* DALL, 1898]. VS: 60, pl. 17, f. 6. San Diego, California, 5 fms. B. M. no. 79.2.26.241, 1 specimen, probably holotype.
- rubidus*, *Pecten*. Jan. 1845. VS: 61, pl. 17, f. 5. Alaska, 33 fms. B. M., 3 syntypes, unnumbered. *Chlamys*. (Not preoccupied by MARTYN, 1784 [non-binomial] and needlessly renamed *P. hindsii navarchus* DALL, 1898).

*sericeus*, *Pecten*. Jan. 1845. VS: 60, pl. 17, f. 1. Panama, 53 fms., 1 only. Not found. *Pecten* (*Pecten*)

LUCINACEA

*fenestrata*, *Lucina*. Jan. 1845. VS: 66, pl. 19, f. 2. Monte Christi; San Blas, 7-14 fms. Not found. (Text-figure 1. HIND's original figure; the form shown in KEEN, 1958, fig. 189, may prove distinct).



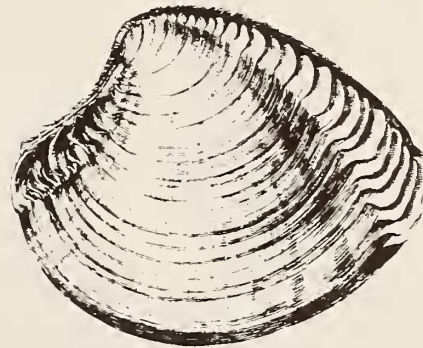
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Figure 1

*Lucina fenestrata* HINDS. Copy of Original Figure. x 0.8

VENERACEA

*kellettii*, *Venus*. Jan. 1845. VS: 65, pl. 19, f. 5. Quibo; Veragua, 30-34 fms. Not found. *Chione* (*Lirophora*). (Text-figure 2. HIND's original figure, better drafted than that of LOWE copied in KEEN, 1958, fig. 330).



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Figure 2

*Venus kellettii* HINDS. Copy of Original Figure x 0.8

TELLINACEA

*bodegensis*, *Tellina*. Jan. 1845. VS: 67, pl. 21, f. 2. Russian Bodegas, 7 fms. B. M. holotype, no. 74.12.11.372.

*fucata*, *Tellina*. Jan. 1845. VS. 67, pl. 21, f. 4. Bay of Magdalena. B. M. holotype, no. 79.2.26.192. *Gari*. (Plate 46, Figure 4).

*decora*, *Psammobia*. Oct. 1842. Ann. Mag. Nat. Hist. 10: 81, pl. 6, f. 1; VS, Jan. 1845: 66, pl. 19, f. 6-7. San Diego. Not found. = *Sanguinolaria nuttallii* CONRAD, 1837.

## MYACEA

*fragilis*, *Corbula*. Nov. 1843. PZS (1843): 56; VS, Jan. 1845: 68, pl. 20, f. 11 (also figured by REEVE, Conch. Icon., vol. 2, Jan. 1844, pl. 3, f. 19). West coast of Veragua, 18 fms. 7 lin (18 mm). B. M. syntype, unnumbered. [= *C. nasuta* SOWERBY, 1833, *vide* OLSSON, 1961]. (Plate 46, Figure 3).

*marmorata*, *Corbula*. Nov. 1843. PZS (1843): 58; VS, Jan. 1845: 69, pl. 20, f. 13. West coast of Veragua, 26 fms. 2 lin. (5 mm). Not found.

*obesa*, *Corbula*. Nov. 1843. PZS (1843): 57; VS, Jan. 1845: 68, pl. 20, f. 12 (also figured by REEVE, 1844, Conch. Icon., vol. 2, pl. 5, f. 38). Panama, Veragua, and San Blas, 22-33 fms. Not found (an identified specimen in B. M. coll. is *C. nasuta*).

*speciosa*, *Corbula*. REEVE, Aug. 1843 (Conch. Icon., vol. 2, *Corbula*, pl. 1, sp. 6). HINDS, PZS for 1843, p. 57, Nov. 1843; VS, Jan. 1845: 68, pl. 20, f. 7-8. Panama, 6 fms; Gulf of Nicoya. 9 lin. (23 mm). B. M. holotype, no. 79.2.26.191. (Although REEVE points out that this is the form called by SOWERBY in 1833 *C. radiata*, a name preoccupied by DESHAYES, he makes it clear that this is not a replacement name, that he is instead characterizing and figuring HINDS' material - unfortunately in advance of HINDS' publication).

## POROMYACEA

*didyma*, *Neaera*. Dec. 1843. PZS (1843): 78; VS, Jan. 1845: 70, pl. 20, f. 19. West coast of Veragua, 26 fms. 3 lin. (8 mm). Not found. *Cuspidaria*.

## AMPHINEURA

*magdalenensis*, *Chiton*. Jan. 1845. VS: 54, pl. 19, f. 1. Bay of Magdalena. B. M., 2 specimens in type collection, with query, no. 42.2.21.37-38. *Stenoplax*.

## GASTROPODA

## PATELLACEA

*depicta*, *Patelloida*. Oct. 1842. Ann. Mag. Nat. Hist., vol. 10: 82, pl. 6, f. 4. San Diego, California. B. M., 2 syntypes, 42.2.21.193-195 ("one smashed"). *Acmaea*.

*inessa*, *Patella*. Oct. 1842. Ann. Mag. Nat. Hist., vol. 10: 82, pl. 6, f. 3. San Diego, California. B. M., 4 syntypes, from Cuming collection, unnumbered. *Acmaea*.

## EPITONIACEA

*aciculina*, *Scalaria*. Mar. 1844. PZS (1843): 125; figured, SOWERBY, Thes. Conch., Jan. 1845, vol. 1: 100, pl. 34, f. 100. West Central America. 3.5 lin. (9 mm). Not found. *Epitonium*.

*dianae*, *Scalaria*. Mar. 1844. PZS (1843): 125; figured,

## Explanation of Plate 46

- All specimens in British Museum (Natural History) -

Figure 1. *Daphnella casta*. Holotype. x 7.

Figure 2. *Phos crassus*. Syntype (largest of three, the two smaller with mature lips). x 0.8.

Figure 3. *Corbula fragilis*. Syntype (on cardboard mount; millimeter scale below). x 2.5.

Figure 4. *Tellina fucata*. Above, left valve (broken), interior x 1.2, exterior, x 1.1. Below, right valve, interior, x 1.2.

Figure 5. *Solarium placentale*. Syntypes. Left, figured specimen; right, dead shell from Belcher coll. x 1.7.

Figure 6. *Cancellaria urceolata*. Syntype (largest of four specimens). x 0.8.

Figure 7. *Cancellaria corrugata*. Syntypes. Left, from Cuming Mus., right, figured specimen. x 1.4.

Figure 8. *Cancellaria ventricosa*. Syntype (larger of two specimens). x 0.8.

Figure 9. *Cancellaria cremata*. Syntype (larger of two specimens). x 1.4.

Figure 10. *Clavatula sculpta*. Holotype. x 5.

Figure 11. *Murex hamatus*. Syntype. x 1.3.

Figure 12. *Clavatula micans*. Holotype. x 7.

Figure 13. *Clavatula rigida*. Holotype. x 8.

Figure 14. *Cancellaria elata*. Apertural and back view of holotype (outer lip broken). x 4.



Figure 1      Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9

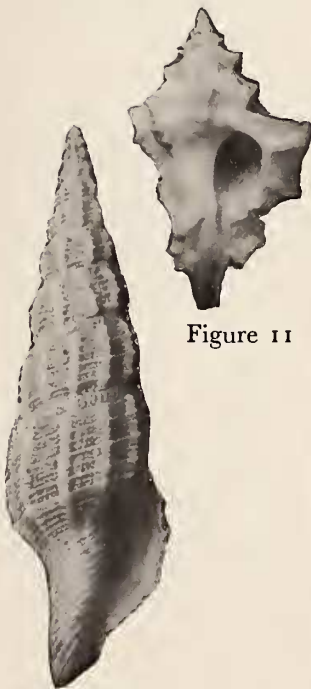


Figure 11



Figure 12

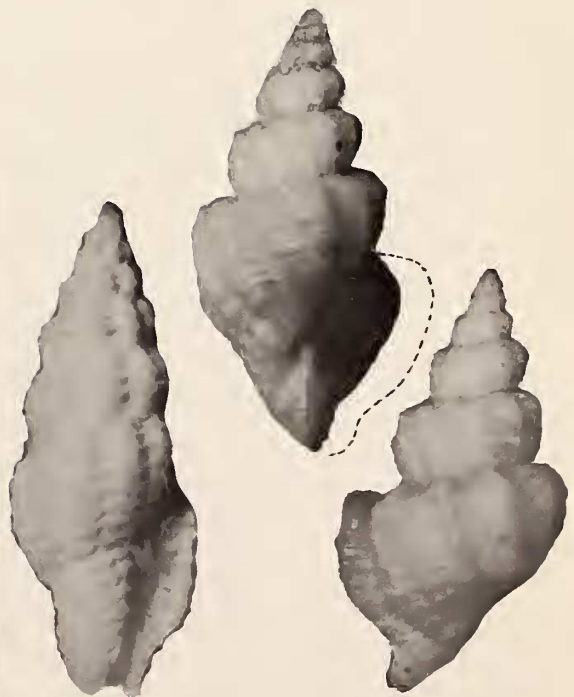


Figure 10

Figure 13

Figure 14



SOWERBY, Thes. Conch., Jan. 1845, vol. 1: 102, pl. 35, f. 124-125. Gulf of Nicoya, 36 fms. 5 lin. (13 mm) [actually 8 mm]. B. M., holotype, no. 1950.4.18.3. *Epitonium (Sthenorytis)*. (Plate 47, Figure 3).  
*vulpina, Scalaria*. Mar. 1844. PZS (1843): 126; figured, SOWERBY, Thes. Conch., Jan. 1845, vol. 1: 106, pl. 35, f. 117-118. Quibo, Veragua, 30 fms. 3 lin. (7.5 mm). Not found. *Epitonium*.

## TURRITELLACEA

*placentale, Solarium*. July 1844. PZS (1844): 22; VS, Jan. 1845: 50, pl. 14, f. 5-6. Bay of Magdalena, 7 fms. B. M., 2 syntypes: one dead shell from Belcher, no. 1844.6.7.33; figured specimen from Taylor coll., no. 74.12.11.200. No dimensions given; figure size, 15 mm, shell 15.5 mm. *Architectonica*. (Plate 46, Figure 5).  
*quadriceps, Solarium*. July 1844. PZS (1844): 23; VS, Jan. 1845: 50, pl. 14, f. 7-8. Panama, 5 fms. Not found. = *Architectonica nobilis* RÖDING, 1798, of authors.

## CERITHIACEA

*gemmatum, Cerithium*. Oct. 1844. VS: 27, pl. 11, f. 5-6. Panama, 2-7 fms. B. M., 3 syntypes, unnumbered. (Type of subgenus *Ochetoclava* WOODRING, 1928, by original designation).

## HIPPONICACEA

*cancellata, Trichotropis*. July 1843. PZS (1843): 17; VS, Oct. 1844: 39, pl. 11, f. 11-12. Sitka, 5-7 fms. 8 lin. (21 mm). Not found.  
*inermis, Trichotropis*. July 1843. PZS (1843): 18; VS, Oct. 1844: 40, pl. 11, f. 13-14. Sitka, 5-7 fms. 7.5 lin. (19 mm). Not found.

## CALYPTRAEACEA

*solida, Crepidula*. Jan. 1845. VS: 53, pl. 16, f. 7-8. Bodegas, 6-10 fms. Not found.

## CYPRAEACEA

*vitellina, Erato*. Oct. 1844. VS: 46, pl. 13, f. 22-23. Bay of Magdalena, 7 fms. B. M., 3 syntypes, one possibly the figured shell, unnumbered.

## CYMATIACEA

*californica, Ranella*. Apr. 1843. Ann. Mag. Nat. Hist. 11: 255; VS, July 1844: 12, pl. 2, f. 4-5. San Diego, California. Not found. *Bursa*.  
*pectinata, Ranella*. See under MURICACEA.  
*anomala, Triton*. See under BUCCINACEA.  
*vestitus, Triton*. July 1844. PZS (1844): 21; VS, July 1844: 11, pl. 4, f. 1-2. Gulf of Nicoya, Realejo, Bay of Honda. Not found. *Lampusia*. (*Septa* PERRY, 1810, recommended as an earlier generic name by CLENCH & TURNER, 1957, *Johnsonia*, vol. 3, no. 36: 214).

## MURICACEA

*belcheri, Murex*. Mar. 1844. PZS (1843): 127; VS, July 1844: 8, pl. 2, f. 1-3. San Diego, California. 66 lin. (168 mm). Not found. *Forreria*.  
*californicus, Murex*. Mar. 1844. PZS (1843): 128; VS, July 1844: 8, pl. 3, f. 9-10. California. 18 lin. (46 mm). B. M., 3 syntypes, one possibly the figured shell [a note says, "figured shell in Mus. Cum."], unnumbered. = *Pterynotus erinaceoides* (VALENCIENNES, 1832).  
*centrifuga, Murex*. Mar. 1844. PZS (1843): 126; VS, July 1844: 8, pl. 3, f. 7-8. West coast of Veragua, 52 fms. 16 lin. (40 mm). Not found. *Pterynotus (Centrifuga)*.  
*festivus, Murex*. Mar. 1844. PZS (1843): 127; VS, July 1844: 9, pl. 3, f. 13-14. Bay of Magdalena, 7 fms. 13 lin. (33 mm). B. M., 2 syntypes, no. 44.6.7.91-2, not figured specimen. *Shaskyus* BURCH & CAMPBELL, 1963)  
*foveolatus, Murex*. Mar. 1844. PZS (1843): 127; VS, July 1844: 9, pl. 3, f. 15-16. Bay of Magdalena. 12.5 lin. (31 mm). Not found. *Ocenebra*.  
*hamatus, Murex*. Mar. 1844. PZS (1843): 128; VS, July 1844: 8, pl. 3, f. 11-12. Bay of Guayaquil, 21 fms. 13.5 lin. (34 mm) [actually 30 mm]. B. M., no. 1907.12.30.134 (figured syntype, from Belcher coll. to S. Hanley to H. Harvey; also figured by REEVE; a second specimen in the general collection as a topotype may be also a syntype, although labelled "*Murex*, sp." by HINDS in 1842). *Ceratostoma*. (Not a synonym of *Ocenebra lugubris* (BRODERIP, 1833); both specimens show a small tooth in the outer lip at the inner edge of an indentation; shell light yellow, canal brown; lip varix with a deep notch;

- lip wider and more sloping than in *O. lugubris*,  
spire higher, varices one less per whorl). (Plate 46,  
Figure 11).
- peritus*, *Murex*. Mar. 1844. PZS (1843): 129; VS, July  
1844: 9, pl. 3, f. 23-24. Bay of Magdalena. 9.5 lin.  
(24 mm). B. M., no. 1902.2.13.2, one specimen,  
probably the holotype. *Ocenebra*.
- radicatus*, *Murex*. Mar. 1844. PZS (1843): 128; VS,  
July 1844: 9, pl. 3, f. 21-22. San Blas, Mexico, 11 fms.  
10 lin. (25 mm). B. M., one specimen, probably  
the holotype, no. 1907.10.28.136. *Ocenebra*.
- pectinata*, *Ranella*. July 1844. VS: 13, pl. 4, f. 17-18. San  
Blas, Mexico, 7 fms. Not found. (Also figured by  
REEVE, July 1844, Conch. Icon., vol. 2, pl. 7, f.  
35). *Eupleura*.
- muricatus*, *Trophon*. July 1844. VS: 14, pl. 1, f. 16-17.  
Panama, 19 fms. Not found. *Coralliophila*.  
(PALMER, 1958, Geol. Soc. Amer. Mem. 76: 209,  
points out that the name is not preoccupied by  
*Murex muricatus* MONTAGU, 1803, as CARPENTER  
assumed, and therefore *Trophon hindsii* CARPENTER,  
1857, was an unnecessary replacement.)
- quadratus*, *Typhis*. July 1843. PZS (1843): 18; VS, July  
1844: 10, pl. 3, f. 3-4. Gulf of Nicoya and Bay of  
Guayaquil. 11 lin. (28 mm). B. M., syntype (not the  
figured shell), no. 1844.6.7.35. = *T. coronata* BRODE-  
RIP, 1833, *vide* KEEN & CAMPBELL, 1964, (Veliger,  
vol. 7: 49).

## BUCCINACEA

- carinata*, *Columbella*. Oct. 1844. VS: 39, pl. 10, f. 15-16.  
Bodegas and San Diego, California, 7 fms. and less.  
B. M., syntype lot, no. 44.9.23.18-20. *Mitrella*.
- fusiformis*, *Columbella*. Oct. 1844. [Non ANTON, 1839; =  
*Strombina fusinoidea* DALL, 1916]. VS: 38, pl. 10,  
f. 17-18. Veragua, 24 fms. B. M., 3 syntypes, un-  
numbered. *Strombina*.
- lentiginosa*, *Columbella*. Oct. 1844. VS: 39, pl. 10, f. 21-  
22. Gulf of Nicoya, under stones on beach. B. M., 4  
syntypes, no. 44.9.23.6-9. *Anachis* (?*Glyptanachis*).  
(Plate 47, Figure 2).
- pardalis*, *Clavatula*. Oct. 1843. PZS (1843): 42; VS,  
July 1844: 22, pl. 7, f. 1. Gulf of Nicoya, under  
stones at low water. 2 lin. (5 mm) [actually 6.5 mm].  
B. M., 1 syntype (not the figured shell), no. 1844.6.  
7.56. *Anachis*, possibly identical with *A. carmen*  
PILSBRY & LOWE, 1932. (Plate 47, Figure 1).
- pavonina*, *Columbella*. Oct. 1844. VS: 38, pl. 10, f. 19-20.  
Locality label lost; "probably West Central Amer-  
ica." B. M., 1 syntype (not the figured shell), no.  
44.9.23.21. *Strombina*.
- anomalous*, *Triton*. July 1844. PZS (1844): 22. VS, July  
1844: 12, pl. 4, f. 13-14. Island of Quibo, Veragua,  
on shore. Not found. *Bailya*.
- metula*, *Buccinum*. Oct. 1844. VS: 31, pl. 16, f. 13-14.  
West coast of Veragua, in a few fathoms. Not found.  
*Metula*.
- articulatus*, *Phos*. Oct. 1844. VS: 38: pl. 10, f. 7-8. Pana-  
ma. B. M., 3 probable syntypes from Cuming Coll.,  
unnumbered. *Phos* (*Antillophos*). [*Antillophos*  
WOODRING, 1928].
- crassus*, *Phos*. Apr. 1843. Ann. Mag. Nat. Hist. 11: 257;  
VS, Oct. 1844: 37, pl. 10, f. 1-2. Panama; Gulf of  
Fonseca, 3-14 fms. B. M., 3 probable syntypes from  
Cuming coll., unnumbered. *Phos* (*Cymatophos*).  
[*Cymatophos* PILSBRY & OLSSON, 1941]. (Plate 46,  
Figure 2).
- gaudens*, *Phos*. Oct. 1844. VS: 38, pl. 10, f. 5-6. Gulf of  
Tehuantepec, 13 fms. B. M., 3 probable syntypes,  
no. 1844.1.24.133-134. *Phos* (*Antillophos*).
- veraguensis*, *Phos*. Apr. 1843. Ann. Mag. Nat. Hist. 11:  
257; VS, Oct. 1844: 37, pl. 10, f. 13-14. Pueblo  
Nueva, west coast of Veragua, 26 fms. B. M., 4 syn-  
types, 3 from Cuming coll., 1 from Belcher, no. 1844.  
9.23.14. *Phos* (*Antillophos*).
- moesta*, *Nassa*. Oct. 1844. VS: 36, pl. 9, f. 18-19. Gulf of  
Papagayo, 8-14 fms. Not found. *Nassarius* (*Arcu-  
laria*).
- myristicata*, *Nassa*. Oct. 1844. VS: 36, pl. 9, f. 10-11.  
"Cape of Good Hope" [actually, as recognized by  
PILSBRY & LOWE, 1932 (Proc. Acad. Nat. Sci. Phila-  
delphia, vol. 84: 68), from West Central America].  
B. M., 1 specimen, probably the holotype, no. 44.9.  
23.11. *Nassarius*.
- perpinguis*, *Nassa*. Oct. 1844. VS: 36, pl. 9, f. 12-13. Bay  
of Magdalena [probably from a California locality,  
instead]. B. M., holotype, no. 44.9.23.5. *Nassarius*  
(*Caesia*). [type of subgenus].

## VOLUTACEA

- belcheri*, *Mitra*. Apr. 1843. Ann. Mag. Nat. Hist. 11:  
255; VS, Oct. 1844: 40, pl. 11, f. 1-2. Gulf of Nicoya  
and Gulf of Papagayo, 17 fms. Not found. (Also  
figured by REEVE, Conch. Icon., vol. 2, Sept. 1844,  
pl. 13, f. 93).
- imbricata*, *Marginella*. Sept. 1844. PZS (1844): 76; fig-  
ured by REEVE, Conch. Icon. vol. 15, Jan. 1865, pl.  
14, f. 59. Acapulco. B. M., 3 syntypes, Cuming Coll.  
(For a figure and lectotype designation, see COAN &  
ROTH, 1966, Veliger, vol. 8, no. 4, this issue, p. 283,  
pl. 48, f. 19-20). *Persicula*.



*sapotilla*, *Marginella*. Sept. 1844. PZS (1844): 74; VS, Oct. 1844: 45, pl. 13, f. 10-11. Panama, 5-13 fms. B. M., 2 lots of 3 each, none the exact size of the figure, i. e., 6 unnumbered syntypes. (For a figure and lectotype designation see COAN & ROTH, 1966, Veliger, vol. 8, no. 4, this issue, p. 279, pl. 48, f. 1-2. *Marginella* (*Prunum*).

## TOXOGLOSSA

## CANCELLARIIDAE

- albida*, *Cancellaria*. Oct. 1843. PZS (1843): 47; VS, Oct. 1844: 42, pl. 12, f. 9-10. Bay of Guayaquil; Panama; Veragua, 7-23 fms. 13 lin. (33 mm). B. M., 3 syntypes of which one may be the figured shell; unnumbered.
- corrugata*, *Cancellaria*. Oct. 1843. PZS (1843): 48; VS, Oct. 1844: 42, pl. 12, f. 1-2. Bay of Guayaquil, 7 fms. 8 lin. (21 mm) [actually, figured shell 16 mm, another 21 mm]. B. M., 2 syntypes, the smaller figured, no. 79.2.26.118, the larger from Cuming Coll., unnumbered. (Plate 46, Figure 7).
- cremata*, *Cancellaria*. Oct. 1843. PZS (1843): 48. Name based on fig. 9 in SOWERBY, 1832, *Conchological Illustrations*, *Cancellaria*. Panama, 4-10 fms. 10 lin. (25 mm). B. M., 2 syntypes, Cuming Coll., unnumbered. (Plate 46, Figure 9).
- elata*, *Cancellaria*. Oct. 1843. PZS (1843): 48; VS, Oct. 1844: 42, pl. 12, f. 3-4. Panama, 30 fms. 9 lin. (23 mm) [actually, 15 mm]. B. M., holotype, no. 79.2.26.120. (Plate 46, Figure 14).
- funiculata*, *Cancellaria*. Oct. 1843. PZS (1843): 48; VS, Oct. 1844: 43, pl. 12, f. 5-6. Gulf of Magdalena, 7 fms. 8 lin. (21 mm). "Single specimen." The only candidate specimen in B. M. collection is similar to but not positively identifiable with the figure. The labelling is contradictory, on the face of the board, "*C. lyrata* ADAMS & REEVE, China seas, Belcher." On

the back of the board in the handwriting of E. A. Smith, "Not *elata* HINDS. = *funiculata* HINDS. Mus. Cum." Identification of the species must therefore be on the basis of the original figures, reproduced here. A modern figure may be that by SHASKY, 1961, Veliger, vol. 4, no. 1: 19, pl. 4, f. 6. If so, the figure in KEEN, 1958, fig. 709 is of *C. campbelli* SHASKY, 1961, *ibid.*, p. 20, pl. 4, f. 5. (Text-figures 3, 4).

*urceolata*, *Cancellaria*. Oct. 1843. PZS (1843): 47; VS, Oct. 1844: 41, pl. 12, f. 7-8. Gulf of Papagayo, 8-14 fms.; San Blas, 7 fms. 16 lin. (41 mm). B. M., 4 syntypes, none the figured shell. (Plate 46, Figure 6).

*ventricosa*, *Cancellaria*. Oct. 1843. PZS (1843): 47; VS, Oct. 1844: 41, pl. 12, f. 11-12. Realejo, 60-70 fms.; San Blas; Gulf of Magdalena, 7 fms. 15 lin. (38 mm) [actually 27 mm]. B. M., 4 syntypes, one figured (Plate 46, Figure 8).

## TURRIDAE

- aspera*, *Clavatula*. Oct. 1843. PZS (1843): 40; VS, July 1844: 19, pl. 6, f. 7-8. Guayaquil, 5 fms.; also North Coast of New Guinea. 4 lin. (10 mm) [length of figure, 14 mm]. Cited in B. M. register as no. 1844.6.7.72 (not found upon search of West American material; perhaps filed as Indo-Pacific).
- ? *Clathurella*.
- bella*, *Clavatula*. Oct. 1843. PZS (1843): 41; VS, July 1844: 19; pl. 6, f. 13. West coast of Veragua, 30 fms.; Gulf of Papagayo, 8-14 fms. 5.5 lin. (14 mm). B. M., 3 syntypes, nos. 1844.6.7.68-69 and 79.2.26.64 (the figured specimen). (Also figured by REEVE, *Conch. Icon.*, Dec. 1843, vol. 1, pl. 18, f. 146).
- Mangelia*. (Plate 47, Figure 5).
- candida*, *Clavatula*. Oct. 1843. PZS (1843): 42; VS, July 1844: 20, pl. 6, f. 18. Magnetic I., west coast of Veragua. 5.5 lin. (14 mm). B. M., 3 syntypes, 1844.6.7.67 (with HINDS' label) and 79.2.26.69 (the figured specimen). *Clathurella*.
- casta*, *Daphnella*: see under ACTEONIDAE
- coelata*, *Clavatula*. Oct. 1843. PZS (1843): 42; VS, July 1844: 22, pl. 7, f. 6. Gulf of Fonseca, 20 fms. 3 lin. (8 mm). Not found. (Specific name spelled *coelata* in original description and VS text, *caelata* in VS plate explanation; recorded as *caelata* by REEVE in *Conch. Icon.*, Nov. 1845; not preoccupied by *Pleurotoma coelata* LEA, 1833). *Mangelia*.
- ericka*, *Clavatula*. Oct. 1843. PZS (1843): 39; VS, July 1844: 17, pl. 5, f. 15. Magnetic I., Veragua, 26 fms. 5 lin. (13 mm) [actually, 11 mm]. B. M., 2 syntypes, no. 79.2.26.54. *Mangelia*. (Plate 47, Figure 4).



Figures 3 and 4

*Cancellaria funiculata* HINDS. Copy of Original Figures. x 0.8  
figure 3: apertural view                      figure 4: back view

- gemmata*, *Pleurotoma*, REEVE, Apr. 1843, Conch. Icon., vol. 1, sp. 83. [Non CONRAD, 1835 = *Gemmula hindsiana* BERRY, 1958]. HINDS, PZS (1843): 37, Oct. 1843; VS, July 1844: 15, pl. 5, f. 4. Gulf of Magdalena, 7 fms. 9 lin. (23 mm) [actually, 21 mm]. B. M., holotype no. 79.2.26.34.
- impresa*, *Clavatula*. Oct. 1843. PZS (1843): 44; VS, July 1844: 21, pl. 6, f. 23-24. Gulf of Papagayo, 8-14 fms. 4.5 lin. (11 mm). Not found. *Clavus (Elaeocyma)*.
- inermis*, *Pleurotoma*, REEVE, Mar. 1843, Conch. Icon., vol. 1, pl. 8, no. 64. HINDS, Oct. 1843, PZS (1843): 37; VS, July 1844: 16, pl. 5, f. 7. 15 lin. (37 mm) [actually, 32 mm]. Bay of Magdalena, 7 fms. B. M., holotype, no. 79.2.26.98. *Ophiodermella* BARTSCH, 1944. (Plate 47, Figure 9).
- luctuosa*, *Clavatula*. Oct. 1843. PZS (1843): 40; VS, July 1844: 18, pl. 6, f. 4. Bay of Guayaquil; Gulf of Magdalena, 5-22 fms. 7.5 lin. (19 mm). B. M., 3 syntypes, nos. 1844.6.7.58-59 and 79.2.26.61 (the figured specimen). *Crassispira*. (Also figured by REEVE, Dec. 1843, Conch. Icon., vol. 1, as *Pleurotoma*, no. 149).
- merita*, *Clavatula*. Oct. 1843. PZS (1843): 42; VS, July 1844: 21, pl. 6, f. 20. Gulf of Nicoya, under stones, low water. 4 lin. (10 mm) [actually, 8 mm]. B. M., 2 syntypes, 1844.6.7.60 (with HINDS' label) and 79.2.26.71 (the figured shell). *Mangelia*. (Also figured by REEVE, Conch. Icon., vol. 1, Dec. 1843, as *Pleurotoma*, no. 148). (Plate 47, Figure 10).
- micans*, *Clavatula*. Oct. 1843. PZS (1843): 43; VS, July 1844: 23, pl. 7, f. 11. Gulf of Papagayo, 14 fms. 3.5 lin. (9 mm) [actually, 8 mm]. Holotype, B. M., no. 79.2.26.78. *Clavus (Elaeocyma)*. (Plate 46, Figure 12).
- militaris*, *Pleurotoma*, REEVE, Mar. 1843, Conch. Icon., vol. 1, pl. 7, no. 55. HINDS, Oct. 1843, PZS (1843): 38; VS, July 1844: 16, pl. 5, f. 10, as *Clavatula*. Veragua, 18 fms.; Panama, 8-30 fms. 20 lin. (51 mm). Not found. *Hindsiclava*.
- neglecta*, *Clavatula*. Oct. 1843. PZS (1843): 45; VS, July 1844: 20, pl. 6, f. 14. Gulf of Nicoya, under stones, low water. 5 lin. (13 mm). B. M., 2 syntypes, nos. 1844.6.7.61 (HINDS' label) and 79.2.26.66 (the figured shell). *Clathurella*. (Plate 47, Figure 7).
- nobilis*, *Pleurotoma*. Oct. 1843. PZS (1843): 37; VS, July 1844: 15, pl. 5, f. 1-2. San Blas, Mexico, 7 fms. 44 lin. (112 mm). Not found. *Pleuroliria*. (Also cited by authors as *Polystira* WOODRING, 1928).
- occata*, *Clavatula*. Oct. 1843. PZS (1843): 41; VS, July 1844: 19, pl. 6, f. 10. Magnetic I., west coast of Veragua. 4.5 lin. (11 mm). B. M., holotype, no. 79.2.26.63. (Type species of *Diptychophlia* BERRY, 1964, Leaflets in Malac. no. 24, p. 150; the two folds on the columella of the holotype were concealed by a sand grain, the camera lucida sketch here given having been made after its removal). (Text-figure 5).
- pardalis*, *Clavatula*: see under BUCCINACEA, family COLUMBELLIDAE.
- plumbea*, *Clavatula*. Oct. 1843. PZS (1843): 41; VS, July 1844: 19, pl. 6, f. 9. Bay of Magdalena, 5 fms. 5 lin. (12 mm) [actually, 8 mm]. B. M., 2 syntypes, nos. 1844.6.7.65-66, with HINDS' label (one figured). *Mangelia*. (Original figure not accurate as to

## Explanation of Plate 47

- All specimens in British Museum (Natural History) -

- Figure 1. *Clavatula pardalis*. Syntype (not figured by HINDS). x 6.
- Figure 2. *Columbella lentiginosa*. Syntype. x 7.
- Figure 3. *Scalaria diana*. Holotype. x 3.3.
- Figure 4. *Clavatula ericea*. Syntypes. x 4.
- Figure 5. *Clavatula bella*. Syntype figured by HINDS. x 2.5.
- Figure 6. *Clavatula plumbea*. Two syntypes, specimen at right figured by HINDS. x 5.
- Figure 7. *Clavatula neglecta*. Two syntypes (specimen at left the one figured, the other with a HINDS label). x 4.
- Figure 8. *Clavatula pudica*. Holotype. x 4.
- Figure 9. *Pleurotoma inermis*. Holotype. x 1.8.
- Figure 10. *Clavatula merita*. Back view of unfigured syntype. x 6.
- Figure 11. *Terebra larvaeformis*. Two largest of three syntypes. x 0.8.
- Figure 12. *Terebra varicosa*. Larger of two syntypes. x 1.7.
- Figure 13. *Terebra tuberculosa*. Largest of three syntypes. x 1.4.
- Figure 14. *Terebra elata*. Smallest and most slender of three syntypes. x 2.5 (Size range 32-35mm, height; 5.2-6.4mm diameter).
- Figure 15. *Terebra radula*. Holotype. x 1.3.
- Figure 16. *Terebra glauca*. Larger of two syntypes. x 1.7.
- Figure 17. *Terebra specillata*. Questionably the holotype, as labelled by E. A. Smith. x 1.3.
- Figure 18. *Terebra armillata*. Three syntypes, on board mount, two specimens from Cuming collection, one presented by Belcher marked with an "x" not now visible. x 0.8.
- Figure 19. *Terebra aspera*. Three syntypes, Cuming collection, photographed on a Cuming original label (note the bold "H. C." at lower right of label, characteristic sample of Cuming's handwriting). x 0.8.



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11



Figure 12



Figure 13



Figure 14



Figure 15



16



Figure 17



Figure 18

Figure 19